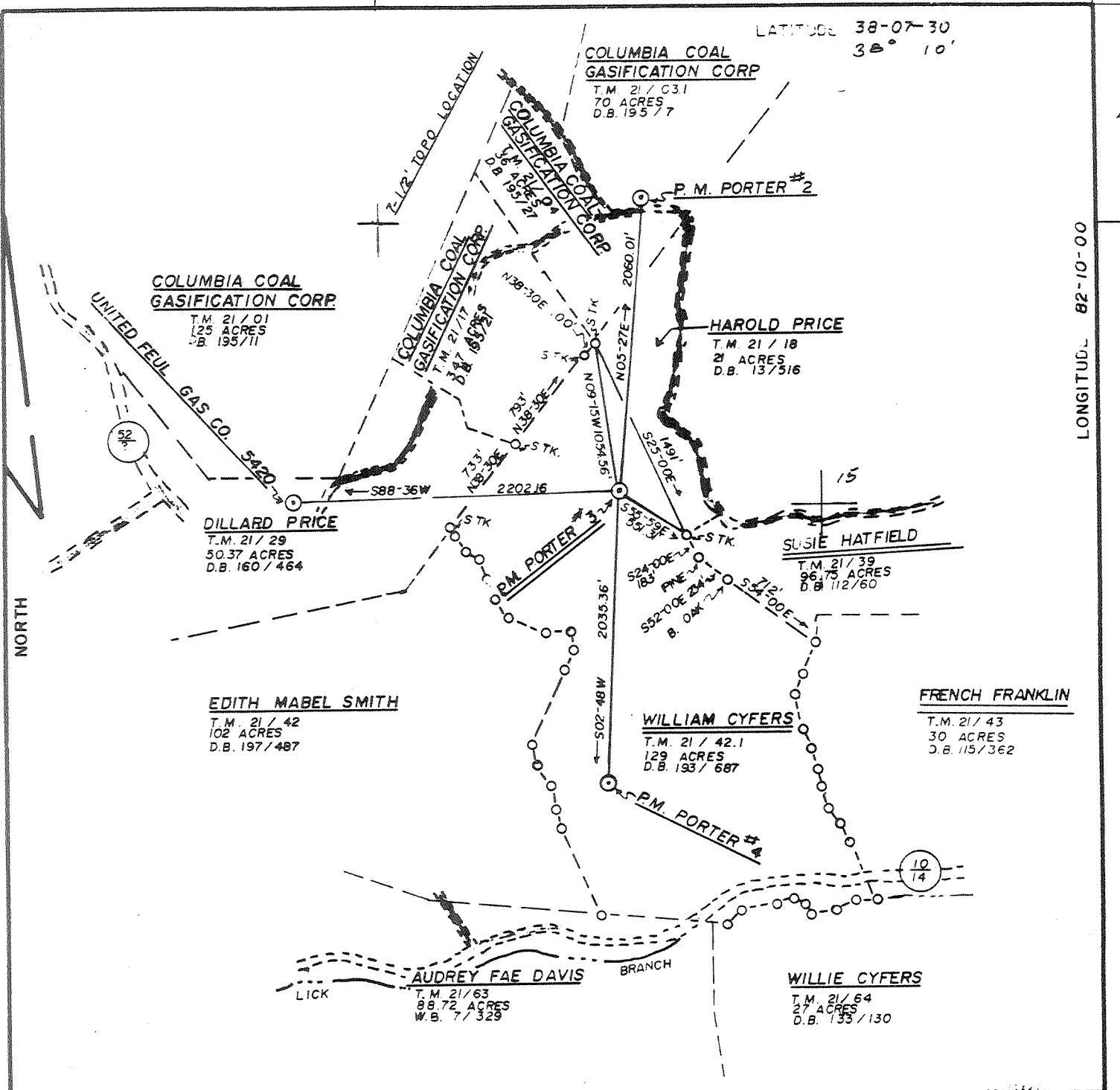


9900'

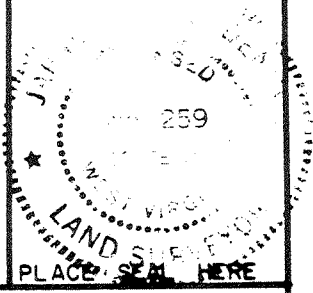
LATITUDE 38-07-30  
38° 10'

3020'  
LONGITUDE 82-10-00



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000 FT.  
 MINIMUM DEGREE OF ACCURACY 1" IN 200  
 PROVEN SOURCE OF ELEVATION B.M. 612, APPROX. 4500' N.E.

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.  
 (SIGNED) [Signature]  
 R.P.E. \_\_\_\_\_ L.L.S. \_\_\_\_\_



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



Department of Mines  
 Oil & Gas Division

DATE APRIL 8, 19 81  
 OPERATOR'S WELL NO. P.M. PORTER #3  
 API WELL NO. 47-043-0541-F  
 STATE COUNTY PERMIT

Fracture Cancelled

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS", PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_)  
 LOCATION: ELEVATION 860' WATER SHED LICK BRANCH OF FOURTEENMILE CREEK  
 DISTRICT LAUREL HILL COUNTY LINCOLN  
 QUADRANGLE RANGER (7 1/2')

SURFACE OWNER WILLIAM CYFERS ACREAGE 129  
 OIL & GAS ROYALTY OWNER BENNETT, SHEPHERD DAURY LEASE ACREAGE 750+  
 LEASE NO. 1614

PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE XX PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION SHALES ENGLING ESTIMATED DEPTH 3706'  
 WELL OPERATOR CABOT OIL AND GAS CORP. DESIGNATED AGENT JIM CRAMBLET  
 ADDRESS PO. BOX 628 CHARLESTON W.Va. ADDRESS PO. BOX 628 CHARLESTON W.Va.  
 SEP 17 1984  
 SEP 17 1984  
 SEP 17 1984

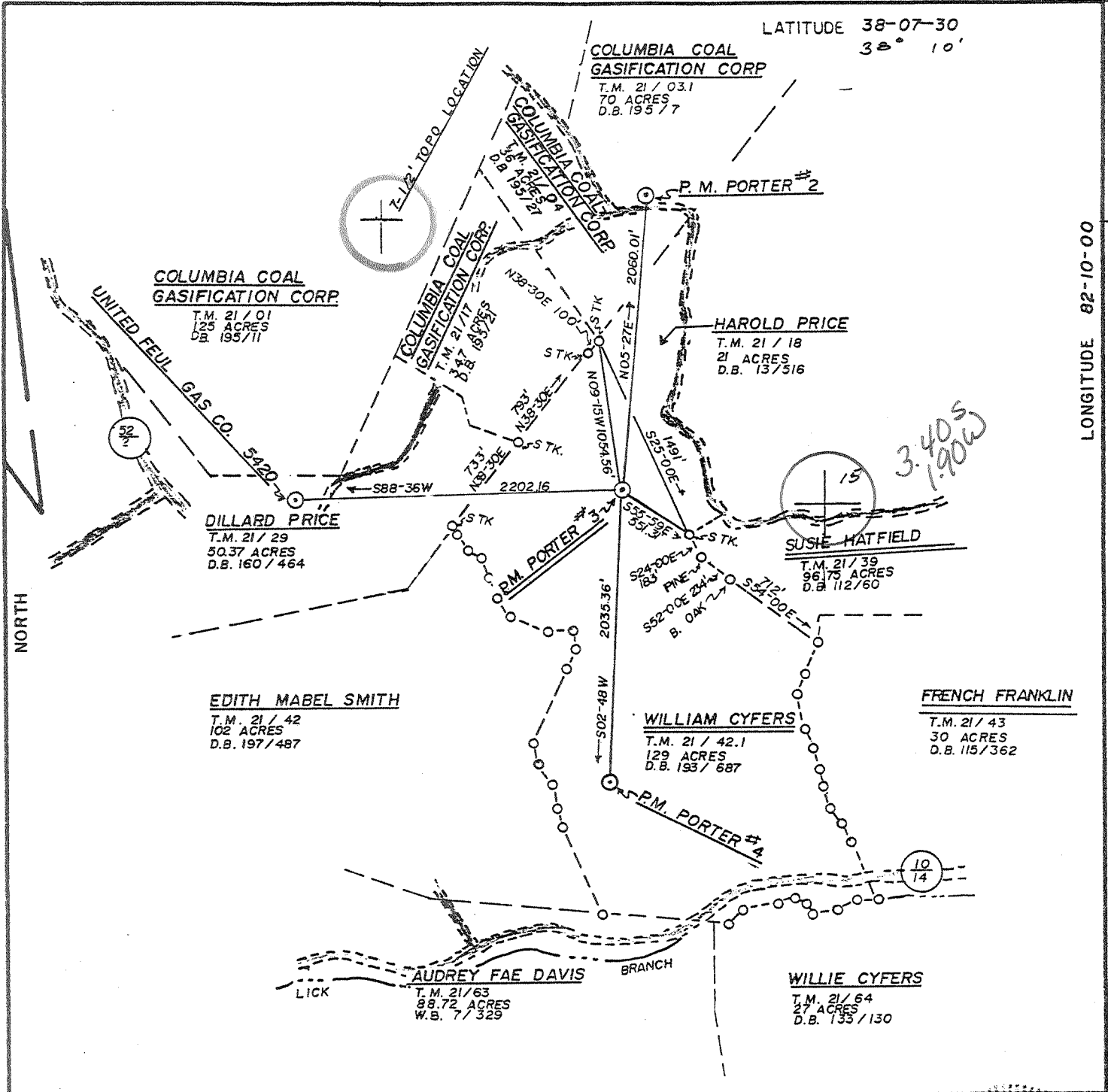
cl. 417

9900'

LATITUDE 38-07-30  
38° 10'

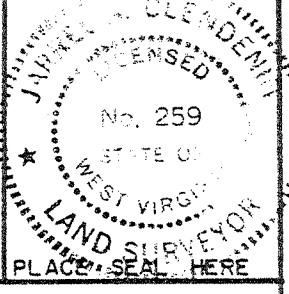
LONGITUDE 82-10-00

3020'



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000 FT.  
 MINIMUM DEGREE OF ACCURACY 1" IN 200  
 PROVEN SOURCE OF ELEVATION B.M. 612, APPROX.  
4500' N.E.

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.  
 (SIGNED) \_\_\_\_\_  
 R. P. E. \_\_\_\_\_ L. L. S. \_\_\_\_\_



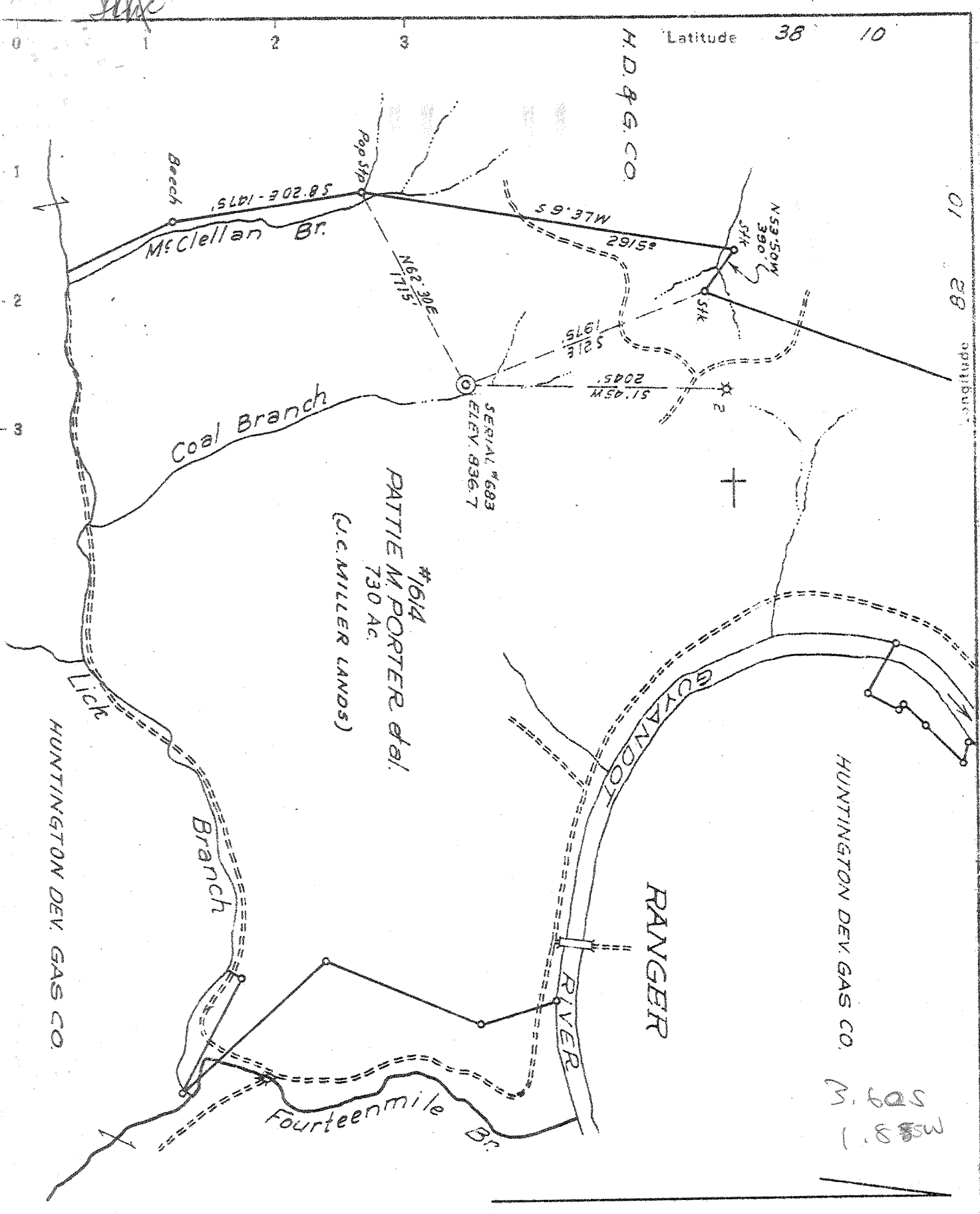
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



DATE APRIL 8, 19 81  
 OPERATOR'S WELL NO. P.M. PORTER #3  
 API WELL NO. 47-043-0541-F  
 STATE COUNTY PERMIT

Department of Mines  
 Oil & Gas Division

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS", PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_)  
 LOCATION: ELEVATION 860' WATER SHED LICK BRANCH OF FOURTEENMILE CREEK  
 DISTRICT LAUREL HILL COUNTY LINCOLN  
 QUADRANGLE RANGER (7 1/2') Madriff WC  
 SURFACE OWNER WILLIAM CYFERS ACREAGE 129  
 OIL & GAS ROYALTY OWNER BENNETT, SHEPHERD, DRURY LEASE ACREAGE 750±  
 LEASE NO. 1614  
 PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
 STIMULATE XX PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW  
 FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION SHALES ENGINE ESTIMATED DEPTH 3706'  
 WELL OPERATOR CABOT OIL AND GAS CORP. DESIGNATED AGENT JIM CRAMBLET  
 ADDRESS P.O. BOX 628 ADDRESS P.O. BOX 628  
CHARLESTON W.V.a. CHARLESTON W.V.a. 1981



New Location ■  
 Drill Deeper  
 Abandonment

Company THE OWENS, LIBBEY-OWENS GAS DEPT.  
 Address BOX 2111 CHARLESTON 28, W. VA.  
 Farm PATTIE M. PORTER et al.  
 Tract \_\_\_\_\_ Acres 730 Lease No. 1614  
 Well (Farm) No. 3 Serial No. 683  
 Elevation (Spirit Level) 8367  
 Quadrangle MIDKIFF - WC  
 County LINCOLN District LAUREL HILL  
 Engineer T.S. FLOURNOY  
 Engineer's Registration No. 269  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 6-30-44 Scale 1" = 1000 FT.

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**  
 FILE NO. 412-541

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.  
 - Denotes one inch spaces on border line of original tracing.

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
W E L L R E C O R D

Permit No. Lin 541  
Midkiff Quad.  
Company  
Address  
Farm  
Location  
Well No.  
District  
Surface  
Mineral

Owens, Libbey-Owens Gas Dept.  
P.O. Box 2111, Charleston 28, W.Va.  
Pattie M. Porter Acres 730  
Coal Branch  
683 Elev. 836.7  
Laurel Hill Lincoln, W.Va.  
Ellen Noe, Ranger, W.Va.  
Pattie M. Porter, 1508-5th Ave.  
Huntington, W.Va.

Gas Well  
CASING & TUBING

10 $\frac{3}{4}$	35	35
8 $\frac{1}{2}$	637	637
6 5/8	1399	1399
3 $\frac{1}{2}$	3366	3366

O W Comb W & A Packer  
Size 3 x 6 5/8 x 16  
Depth 1532-1538

Commenced 7-24-44  
Completed 9-25-44  
Date shot ( see below )  
Open flow 18/10ths W in 3"  
Volume 300 MCF  
Rock Pressure 6 470 lbs. 60 hrs.  
Oil Show at 653  
Fresh Water 68; stood at 40'; 629  
Salt Water 679; 1/2 bail hr; 729'  $\frac{1}{2}$  bail hr.

Perf. top 3374  
" bot 3405  
" top 3312  
" bot 3342

No coal

Surface			0	15	Slate & Shell	Gr	M	2671	2702
Sand	Gr	S	15	100	Shale	Br	H	2702	2731
Slate	light	S	100	160	Slate	Wh	M	2731	2802
Sand	Gr	S	160	196	Shale	Br	S	2802	2829
Slate	Wh	S	196	201	Slate	Lt	S	2829	2920
Sand	Wh	S	201	245	Shell	Dk	H	2920	2937
Slate	Lt	S	245	275	Slate	Lt	S	2937	3011
Sand	Lt	S	275	361	Shale	Br	S	3011	3021
Slate	Dk	S	361	439	Slate	Lt	S	3021	3075
Sand	Wh	S	439	469	Shale	Br	S	3075	3149
Slate	Dk	S	469	528	Shell	Dk	H	3149	3176
Sand	Lt	S	528	568	Shale	Br	S	3176	3326
Slate	Dk	S	568	648	Shell	Dk	H	3326	3336
Salt Sand	Wh	H	648	917	Slate	Lt	S	3336	3613
Slate	Dk	S	917	920	Shale	Br	S	3613	3681
Salt Sand	Wh	H	920	1183	Shale Shells	Br	S	3681	3702
Slate	Dk	S	1183	1195	Corniferous Lm.	Gr	H	3702	3706
Sand	Dk	H	1195	1205	TOTAL DEPTH				3706
Slate	Dk	S	1205	1210					
Sand	Dk	H	1210	1225	Rainbow oil 653				
Slate	Dk	S	1225	1230	Gas 1477; 1484 -387 C.F.; Show gas				
Red Rock		S	1230	1242	1625 ; Gas 1625-1630 60 M; Test gas				
Slate	Dk	S	1242	1337	1923 25 M; Gas 1946 inc. to 28 M				
Shells	Dk	S	1337	1343	Gas 2179 inc. to 33 M; Gas 2184-2189				
Slate	Dk	S	1343	1348	inc. to 48 M.; Gas test 2907 43 M;				
Little Lime	Dk	H	1348	1384	Gas inc. to 50 M; Gas test 3104 48 M;				
Slate - R.C.?	Dk	S	1384	1387	Gas inc. from 3138-3139 55 M; Gas				
Big Lime	Wh	H	1387	1577	3336 inc. to 58 M; Gas 3363 inc. to 59 M				
Injun Sand	Gr	H	1577	1586	M				
Injun Sand	Red - M?	H	1586	1625	Test B.S. 59 M shot 9-25-44 with				
Injun Sand	Gr	S	1625	1648	1150# Detonite 3587-3706 Test 12 hrs.				
Slate & Shells	Dk	H	1648	1833	A.S. 71 M				
Shell	Lt	H	1833	1872					
Slate & Shell	Lt	H	1872	2047	Shot 9-27-44 8300# Detonite				
Slate & Shell	Gr	S	2047	2160	2563-3419 Test B.S. 71 M Test 24 hrs.				
Brown Shale	Br - Sky?	S	2160	2178	A.S. 300 M				
Berea Sand	Wh	H	2178	2189					
Slate		S	2189	2204	Hole bridged at 3419 B.S. 2nd time				
Slate	Lt	S	2189	2204	bridge cleaned out A.S.				
Shell	Lt	H	2204	2234	2nd time well tubed at 3406'				
Slate	Dk	S	2234	2239					
Slate & Shell	Lt	S	2239	2279					
Shell	Lt	H	2279	2322					
Slate & Shell	Lt	H	2322	2351					
Shell	Lt	H	2351	2381					
Slate & Shell	Dk	S	2381	2483					
Slate	Lt	S	2483	2573					
Shale	Br	S	2573	2573					
Slate & Shell	Gr	M	2573	2617					
Shale	Br	M	2617	2671					

3702



Date: May 15, 19 81

Operator's Well No. P. M. Porter #3

API Well No. 47 - 043 - 0541-FRAC  
State County Permit

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES, OIL AND GAS DIVISION

OIL AND GAS WELL PERMIT

WELL TYPE: Oil        / Gas XX /  
(If "Gas", Production        / Underground storage        / Deep        / Shallow        /)

LOCATION: Elevation: 860' Watershed: Lick Branch of Fourteen Mile Creek  
District: Laurel Hill County: Lincoln Quadrangle: Ranger

WELL OPERATOR Cabot Oil & Gas Corporation  
Address P.O. Box 628  
Charleston, WV 25322

DESIGNATED AGENT H. Baird Whitehead  
Address P.O. Box 628  
Charleston, WV 25322

OIL & GAS ROYALTY OWNER SEE ATTACHED SHEET  
Address       

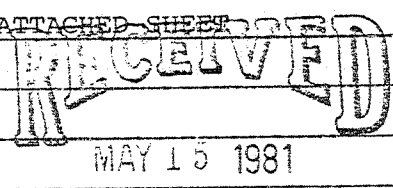
COAL OPERATOR NONE  
Address       

Acreage 750+

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER William Cyfers  
Address Gen. Del.  
Ranger, WV 25314  
Acreage 129

Name SEE ATTACHED SHEET  
Address         
Name         
Address       



FIELD SALE (IF MADE) TO:  
Address       

Name         
Address       

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Kenneth Butcher  
Address RFD #1  
Barboursville, WV 25504

Name         
Address       

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed        / lease XX  
other contract        / dated April 15, 19 41, to the undersigned well operator from Pattie M. Porter et al  
(If said deed, lease, or other contract has been recorded:)

Recorded on July 10, 19 41, in the office of the Clerk of the County Commission of Lincoln County, West Virginia in Deed Book 25 at page 125. A permit is requested as follows:

PROPOSED WORK: Drill        / Drill deeper        / Redrill        / Fracture or stimulate XX /  
Plug off old formation        / Perforate new formation        /  
Other physical change in well (specify)       

—planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
1615 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

CABOT OIL AND GAS CORPORATION  
Well Operator  
By H. Baird Whitehead  
District Production Superintendent

BLANKET BOND

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Lauffer Well Service Inc.

Address P.O. Box 667  
Paintsville, KY 41240

GEOLOGICAL TARGET FORMATION, Brown Shale, Injun, Berea

Estimated depth of completed well, 3706 feet Rotary        / Cable tools XX /

Approximate water strata depths: Fresh, 68' feet; salt, 679, 729 feet.

Approximate coal seam depths: None Recorded Is coal being mined in the area? Yes        / No XX /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS			New	Used	FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft			For drilling	Left in well		
Conductor	10 <sup>3</sup> / <sub>4</sub>	H-40	32.75			35'	35'	Present	Kinds Oil Well Anchor
Fresh Water	8 <sup>5</sup> / <sub>8</sub>	UNK	24			637'	637'	Present	Wall
Coal									Sizes 3 <sup>1</sup> / <sub>2</sub> x 6 <sup>5</sup> / <sub>8</sub> x 16
Intermediate	7	H-40	17			1399'	1399'	Present	
Production	4 <sup>1</sup> / <sub>2</sub>	K-55	10.5	X			2300'	100 sks	Depth set 1532-1538
Tubing	2 <sup>3</sup> / <sub>8</sub>	J-55	4.6	X			3700'		
Liners	3 <sup>1</sup> / <sub>2</sub>	UNK	7.7				3366'	Present	Perforations:
									Top 3374' Bottom 3405
									3312' 3342

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

PERMIT MUST BE POSTED AT THE WELL SITE

Conditions being in accordance with Chapter 22, West Virginia Code, the location is hereby approved for fracturing. This permit shall expire if operations have not commenced by 1-26-82.

[Signature]  
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

The undersigned coal operator        / owner        / lessee        of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date:       , 19        By